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Figure 1A

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Figure 1B

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Figure 1C

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\*            L49 V<sub>R</sub>            \*            \*            \*

1            MEVQLQESGP SLVKPSQTLS LTCSVTGDSI TSGYWNWIRK FPGNKLEYMG

\*            \*            \*

51           YISDSGITYY NPSLKSRISI TRDTSKNQYY LQLNFVTAED TATYNCAARRT

218 Linker            \*

101           LATYYAMDYW GQGTSVTVSS GSTSGSGKPG SGEGSTKGDF VMTQTPLSLP

L49 V<sub>L</sub>

151           VSLGDQASIS CRASQSLVHS NGNTYLHWYL QKPGQSPKLL IYRVSNRFSG

201           VPDRFSGSGS GTDFTLKISR VEAEDLGVIYF CSQSTHVPPT FGGGTKLEIK

251           RTPVSEKQLA EVVANTITPL MKAQSVPGMA VAVIYQGKPH YYTFGKADIA

301           ANKPVTPTQL FELGSISKTF TGVLGGAIA RGEISLDDAV TRYWPQLTCK

351           QWQGIRMLDL ATYTAGGLPL QVPDEVTDNA SLLRFYQNWQ PQWKPGTTRL

401           YANASIGLFG ALAVKPSGMP YEQAMTTRVL KPLKLDHWI NVPKAEBAHY

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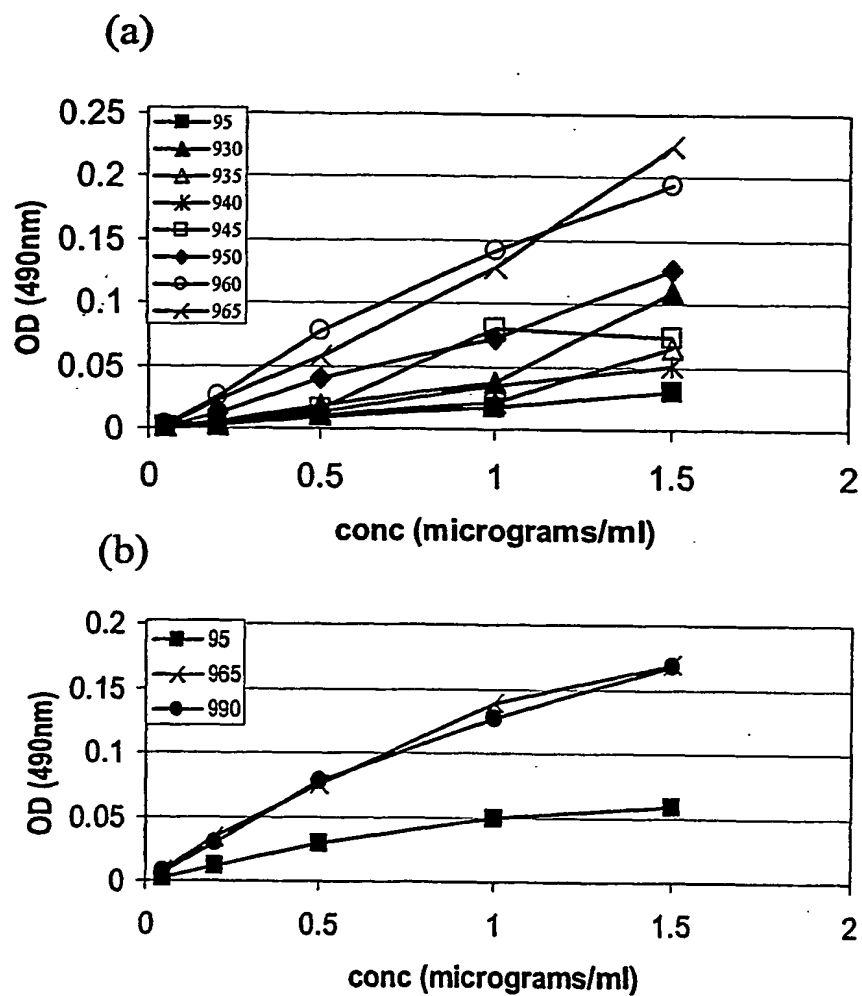
501           QGIALAQSRV WRIGSMYQGL GWEMLNWPVE ANTVVETSFG NVALAPLPVA

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601           VEAAYHILEA LQ

Figure 1D

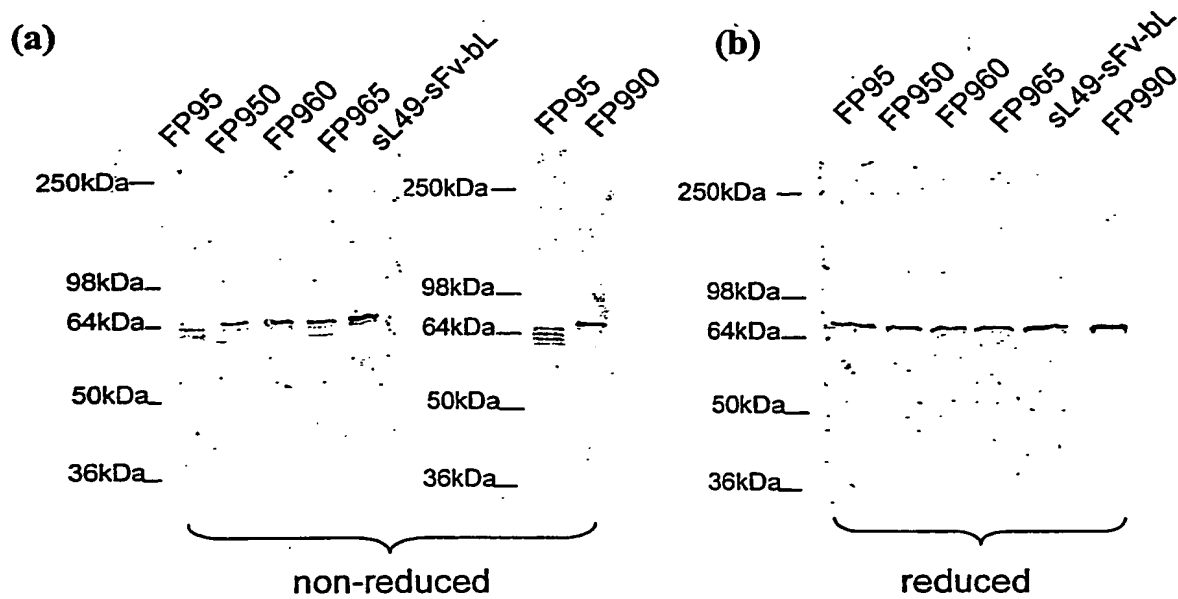
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Figures 2A-2B

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## Western analysis of refolded molecules



Figures 3A-3B

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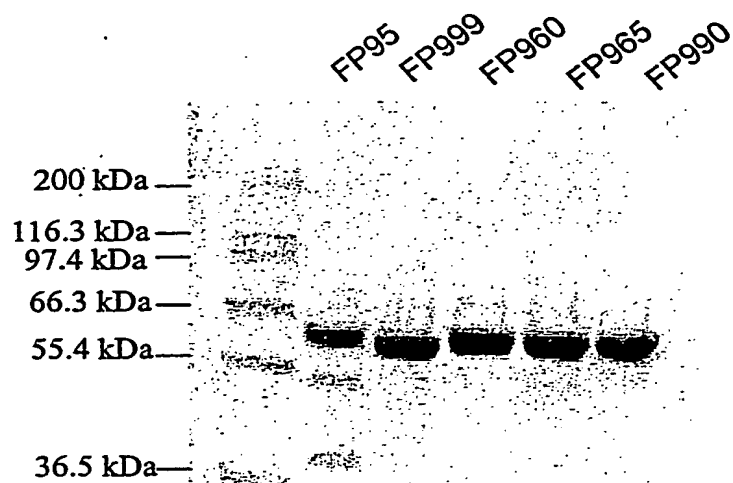
**Purified L49-sFv-bL wild-type and mutant fusion protein**

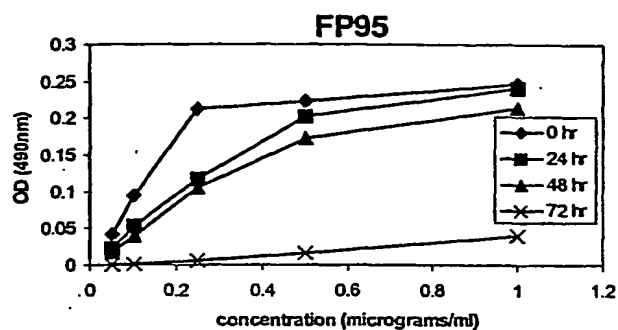
Figure 4

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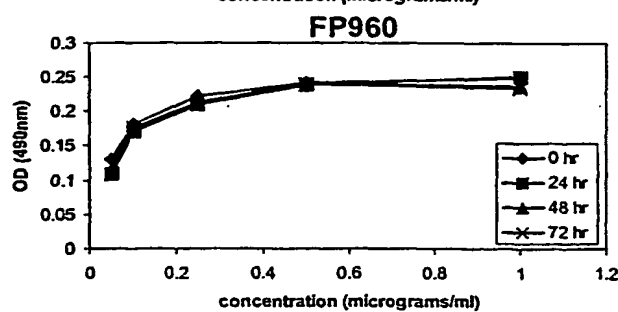
## Figures SA-SE

## Stability of L49-sFv-bL parental and mutant molecules in mouse plasma

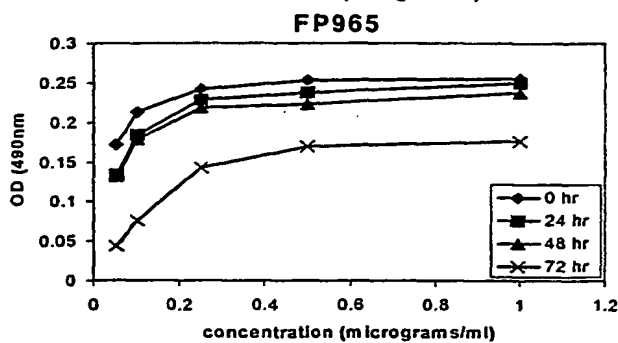
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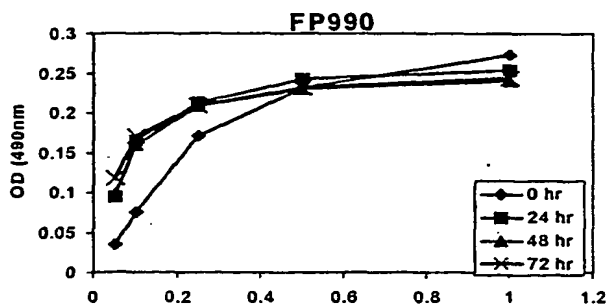
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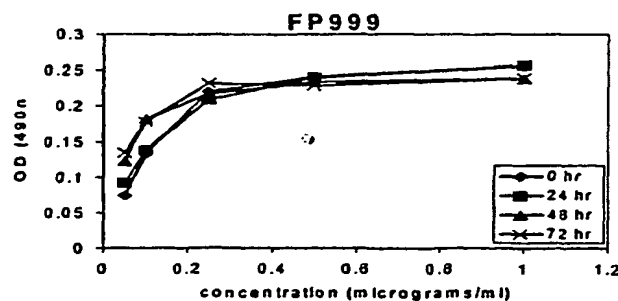
C.



D.



E.



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**Cytotoxic Effects of Mutant L49-sFv-bL molecules FP990 and FP999 in combination with C-Mel**

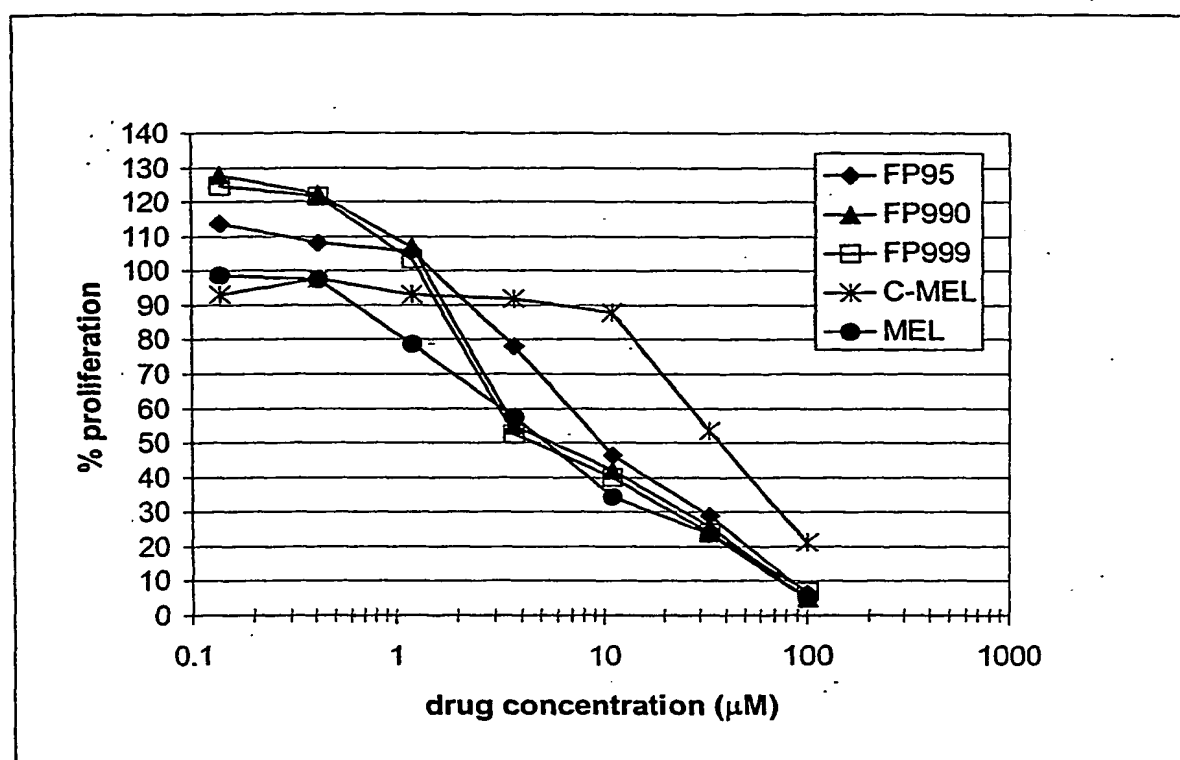


Figure 6



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**In vivo efficacy of mutant L49-sFv-bL molecules FP990 and FP999 in combination with C-Mel**